

REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Amend claims 1 and 8.
2. Respectfully traverse all prior art rejections.
3. Request a one month extension of time.

B. PATENTABILITY OF THE CLAIMS

Claims 1, 4, 7, 8 and 11 stand rejected under 35 USC 102(b) as being anticipated by U.S. Patent 5,415,954 to Gauthier et al. Claims 2-3 and 9-10 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 5,415,954 to Gauthier et al in view of U.S. Patent 6,120,930 to Rouillard et al. All prior art rejections are respectfully traversed for at least the following reasons.

As amended, the polymer battery of independent claims 1 and 8 uses carbon material as a negative electrode material. By contrast, the batteries of Gauthier and Rouillard use a metal material as the negative electrode material. Further, Gauthier and Rouillard obtain electricity from a negative electrode buy using the metal material as the negative electrode material or a negative electrode collector, not by using a collector tab.

If the negative electrode material or the negative electrode collector of the batteries of Gauthier and Rouillard were instead to be formed by carbon, the resultant Gauthier and Rouillard batteries would not perform sufficiently since the carbon material does not have as much electric conductivity as the metal material. Therefore, it is not possible that the negative electrode material or the negative electrode collector of the batteries of Gauthier and Rouillard can be carbon material.

In addition, the polymer batteries of independent claims 1 and 8 advantageously reduce internal shorts caused by vibration of the battery and improve productivity during process for stacking electrodes (see page 5, lines 5 to 16 of the specification).

Concerning independent claim 8, it is evident that the final office action misconstrued the tab limitation of Applicants' claims in order to evade Applicants' claim requirement that "an outer periphery of the separator and an outer periphery of the negative electrode are positioned entirely outside an outer periphery of the positive electrode except for a collector tab." In other words, the office action is trying to interpret the edge of Gauthier's lithium sheet b which contacts the outlet device f,j as the tab, and thereby ignore the fact that around one of its edges the lithium sheet b of Gauthier et al. does not fulfill the requirement of Applicants' independent claim 8.

From U.S. Patent 5,415,954 to Gauthier et al. is clear that "the sheet of free lithium ... laterally projects at the upper end by about 6.3 mm relative to the cathode and its aluminum collector..." (col. 10, lines 16 – 18). Such extension of lithium sheet b of U.S. Patent 5,415,954 to Gauthier et al. is also clearly illustrated in Fig. 4A and Fig. 4B.

To misconstrue the entire upper edge of Gauthier's lithium sheet b as a "tab" is contrary the ordinary meaning of the word "tab"¹ and certainly contrary to what is illustrated in Applicants' disclosure. For example, Applicants' Fig. 1 shows tabs 4 as having narrower breadth in a direction perpendicular to the direction of their projection or extension from Applicants' electrode structure. In other words, Applicants' Fig. 1 shows each tab 4 as having a narrower extent in a direction across the page than the extent in the same direction of the electrode from which the tab extends. To construe a tab as having a same extent as the electrode in any given direction would totally undermine Applicants' structure and purpose, and be inconsistent with other limitations of Applicants'

independent claims. The independent claims require that “an outer periphery of the separator and an outer periphery of the negative electrode are positioned entirely outside an outer periphery of the positive electrode except for a collector tab.”

Moreover, it should be appreciated that the manner in which U.S. Patent 5,415,954 to Gauthier et al. connects electrodes is entirely different than that of Applicant. U.S. Patent 5,415,954 to Gauthier et al. has its anode outlet device f,j positioned above the wound electrodes and its cathode outlet device h positioned beneath. U.S. Patent 5,415,954 to Gauthier et al. thus requires a staggered offset relationship for its constituent components. Applicant, on the other hand, has both electrical interfaces oriented in a same direction, and therefore can do what Gauthier cannot: nest components on a pyramid which concentrically tapers as it ascends. This structure is not taught or suggested by either U.S. Patent 5,415,954 to Gauthier et al. or U.S. Patent 6,120,930 to Rouillard et al. (as explained in the March 16, 2007 remarks).

C. MISCELLANEOUS

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

1 Merriam-Webster Dictionary definitions: a short projecting device ..., an appendage, extension...

YAMADA, K. et al.
Serial No. 10/733,762

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Respectfully submitted,

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